

2015 National FFA Dairy Cattle Event

Herd Record Evaluation

Select the one cow that best answers each of the following 10 questions.

For questions 1 through 10, use the “herd record evaluation” which is attached to the quiz.

1. Indicate which cow is potentially suffering from rumen acidosis.
2. Which cow should be the next one to be dried off after the testing date, assuming that breeding dates are accurate?
3. Indicate which cow has the highest index value that selects for the improvement of milk, fat, and protein yield, somatic cell score and productive life.
4. Which cow has the lowest mature equivalent for fat?
5. Indicate the cow having the least impact on the somatic cell count in the bulk tank.
6. Indicate which cow is having the most impact on the somatic cell count in the bulk tank.
7. Select the cow that will transmit the lowest expected breeding value to her offspring for milk.
8. Select which cow will be the next one to calve after the testing date, assuming normal gestation length.
9. Determine the cow with the highest expectation among the cows for the value of a future lactation's production, relative to the herd average.
10. Select the cow which is the most significantly underweight.

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Dairy Management Exercise

Select best answer for each of the following 40 questions.

1. White blood cells (leukocytes) that move into the udder during inflammation and epithelial cells from milk producing tissues are two type of cells that are measured when your cow is suffering from what?
A) Pinkeye, B) Milk Fever, C) Mastitis, D) Ketosis, E) None of the above.
2. After milk is picked up at the farm, how often should the bulk tank be washed and sanitized? A) Every time it is emptied, B) Once a Day, C) Once a week, D) Monthly, E) Once a year.
3. You recently visited a farm that installed new lights in the freestall barn. The goal was to increase the photoperiod of the cows by providing them with 16-18 hours of light to increase milk production. What hormone is released by the pineal gland in response to this lighting change?
A) Oxytocin, B) Melatonin, C) Progesterone, D) Prostaglandin, E) Relaxin.
4. When lameness caused by abscesses, infection, foot rot or injury is common in a dairy herd, what should the owner implement immediately to help reduce lameness in his herd? A) Footbath, B) New bedding, C) Change milking times, D) Increase the moisture in the bedding pack, E) All of the above.
5. It is often said you can't improve what you can't measure. The Brix refractometer is a tool used on many dairy farms to help estimate or measure what?
A) Wither height, B) Light quality C) Cow's reaction time, D) Amount of bacteria in milk, E) Colostrum quality.
6. Healthy calves are essential to any dairy operation. To be a better grower of calves you have joined the Dairy Calf & Heifer Association. According to this organization, how many quarts of colostrum should a calf receive in the first four hours of life?
A) 1 quart, B) 2 quarts, C) 4 quarts, D) 8 quarts, E) 12 quarts.
7. If there are large numbers of flies around the dairy barn, what should be the first thing to be examined in an attempt to solve the fly problem?
A) Cow feeding procedures, B) Milking procedures, C) Calf feeding procedures, D) Manure handling procedures, E) Mowing the grass.
8. Mastitis is a growing problem on your neighbor's farm. You notice that he is bedding his cows with straw. You recommend that he should change his bedding to what to help decrease the amount of bacteria? A) Sawdust, B) Sand, C) Compost, D) Chopped Bark, E) All of the above will work.
9. When using a body condition scoring system of 1 to 5, what does a score of 1 mean? A) Extremely thin, B) Average body condition, C) Extremely fat, D) Above average body condition, E) These are the best cows in the herd.

10. Paul Bunyan's ox "Babe" had a rare genetic disorder that caused him to be blue. Both his parents were apparently normal. What are the odds his next full-sib will be blue? A) 25%, B) 50%, C) 67%, D) 75%, E) 100%.
11. In what part of whole milk are most of the off-flavors found?
A) Protein, B) Lactose, C) Butterfat, D) Water, E) Minerals.
12. A cow is almost ready to calf. You observe excessive fluid accumulation in the udder and surrounding tissues. What do we call this condition?
A) Ketosis, B) Udder Edema, C) IBR, D) Mastitis, E) Bangs.
13. This dairy breed was originally used for milk, meat and draft purposes. Today it is known for high protein to fat ratio, longevity, sound feet and legs, and having few health problems. Which breed is this?
A) Guernsey, B) Milking Shorthorn, C) Jersey, D) Brown Swiss, E) Holstein.
14. The following information is listed concerning a cow:
305 3X 35,234 4.2 1480 3.2 1127
Which of the following is not correct? A) 305 day lactation,
B) Milked three times per day, C) Milk contained 4.2 % milk fat,
D) Milk contained 3.2% milk fat, E) Milk contained 3.2% milk protein.
15. You infuse an antibiotic into a cow's udder to treat her for mastitis, how should her milk be handled? A) Discard milk from treated quarter according to label,
B) Discard milk from treated quarter for 72 hours,
C) Discard all milk according to label, D) Discard all milk for 72 hours,
E) Discard all milk for 96 hours.
16. What state is currently working on a proposal to establish a new Federal Milk Marketing Order? A) New Mexico, B) Wisconsin, C) California, D) Washington, E) Michigan.
17. Absorption of antibodies from colostrum primarily takes place in which compartment of a calf's stomach?
A) Abomasum, B) Omasum, C) Reticulum, D) Rumen, E) Small Intestine.
18. During evening chores you notice one of your heifers is not feeling well and is in need of treatment. After reading the product label you are using for treatment, you learn that the shot has to be given IM. Where is the injection site located on your heifer? A) In the muscle of the neck, B) In the vein, C) In the fat tissue, D) Under the skin, E) It doesn't matter.
19. The Council on Dairy Cattle Breeding recently reported the following milestone achieved in genotyping dairy animals in August 2015. A) 500,000 genotyped, B) 750,000 genotyped, C) 1 million genotyped, D) The first animal with 100% of its genome typed, E) 3 million genotyped.
20. All quality assurance programs insist that a farmer have what type of on-going relationship with their veterinary? A) Veterinary Client Patient Relationship (VCPR), B) A relationship is not required, C) Telephone contact only, D) First name basis, E) None of the above.

21. The dairy cow has the ability to digest some of the plant carbohydrates which animals with simple stomachs cannot. Which of the following is not one of these carbohydrates? A) Cellulose, B) Lignin, C) Hemicellulose, D) Starch, E) Pectin.
22. Cull heifers and cows have been treated with hormones to cause them to become sexually active as heat check animals. What is the primary hormone that is used? A) Estrogen, B) Progesterone, C) LH, D) FSH, E) Testosterone.
23. Which of the following countries was the number 1 milk and milk product importer in 2014? A) Japan, B) Algeria, C) Saudi Arabia, D) China, E) Russian Federation.
24. This waxy substance found in the teat duct limits bacterial growth and provides a physical barrier against bacteria.
A) Alveoli, B) Keratin, C) Myoepithelial, D) Prolactin, E) Papillae.
25. Little Miss Muffet sat on her tuffet, eating her curds and whey. How many pounds of whey are produced from 10 pounds of milk?
A) 1 pound, B) 10 pounds, C) 9 pounds, D) 5 pounds, E) 0 pounds.
26. When a dairy farm operation is owned by a single individual, what type of business entity is this called? A) Limited Liability Corporation, B) Limited Liability Partnership, C) C Corporation, D) S Corporation, E) Sole proprietorship.
27. What corn forage is typically harvested with a forage harvester equipped with an ear-snapper header? The ear should be chopped with a short length-of-cut and then well processed with the on-board kernel processor.
A) Earlage, B) Snaplage, C) Corn Silage, D) Haylage, E) All of the above.
28. What is the name of the new fluid milk beverage that is ultra-filtered that Coca-Cola is producing with Select Milk Producers?
A) Dairy Pure, B) TruMoo, C) Muscle Milk, D) Fairlife, E) CocaMoo.
29. What is the name of the international organization of educators, scientists and industry representatives who are committed to advancing the dairy industry? The Journal of Dairy Science is the organization's official publication.
A) American Dairy Science Association, B) American Dairy Association, C) International Dairy Producers, D) American Animal Science Association, E) Dairy Herd Improvement Association.
30. Which of the following countries was the number 1 exporter of milk and milk products in 2014.
A) New Zealand, B) European Union, C) United States, D) Belarus, E) Australia.
31. The PMO regulations govern the production, hauling, processing, packaging and storage of which type and grades of milk? A) Only Grade A milk, B) Both Grade A and manufacturing milk, C) Manufacturing grade milk only, D) Grade B only, E) Processing grade milk and Grade A.
32. In the reproductive cycle, the level of what hormone in the blood decreases when the corpus luteum is destroyed?
A) Relaxin, B) Testosterone, C) Oxytocin, D) Progesterone, E) Prostaglandin.

33. After harvesting corn silage, you take a soil test. The test shows your field is high in phosphorus and low in potassium. Which of the following fertilizers would you not apply in order to reduce the potential of phosphorus run off?
A) 0-0-44, B) 46-0-0, C) 0-0-50, D) 11-52-0, E) 18-4-12.
34. On a dairy farm where foot rot problems have been identified in the herd as a major cause of lameness, which common material is used in the footbath to prevent foot rot:
A) Copper sulfate, B) Calcium carbonate, C) Sodium chloride, D) Monosodium phosphate, E) Iron oxide.
35. This fatal cattle disease destroys the intestinal lining of ruminants with its major symptom being diarrhea?
A) IBR, B) Johne's disease, C) Listeria, D) Leukosis, E) Black Leg.
36. Which group of cattle should not be vaccinated with a modified live bovine virus diarrhea vaccine: A) Calves, B) Pre-pubertal heifers, C) Open cows and heifers, D) Pregnant cows and heifers, E) None of the above.
37. Which vitamin is often recommended as a feed additive to minimize the occurrence of fatty liver and ketosis in fresh cows?
A) Niacin (B-3), B) Vitamin A, C) Thiamine (B-1), D) Vitamin E, E) Biotin (B-7).
38. When the environmental temperature falls below 30 degrees F, the normal diet of a young calf should be supplemented with?
A) Water, B) Energy, C) Protein, D) Vitamin A, E) Warm fresh milk.
39. A cow who has recently calved has had her blood tested. The test shows that she has a calcium deficiency more than likely related to an imbalance of calcium, phosphorus and Vitamin D. Which disease is the cow suffering from?
A) Blackleg, B) Ketosis, C) Milk Fever, D) Johne's, E) Hardware.
40. In the updated 2009 PDCA Dairy Cow Unified Scorecard, in the dairy strength category which trait receives the highest priority?
A) Ribs, B) Chest, C) Barrel, D) Thighs, E) Neck.